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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,241	11/16/2005	Guldo Vendel	102132-27	3633

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NORRIS, MCLAUGHLIN & MARCUS
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EXAMINER

KHAN, IBRAHIM A

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/538,241	Applicant(s) VENDEL ET AL.	
	Examiner Ibrahim A. Khan	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to Applicant's amendment filed on 03/28/2007. **Claims 21-32** are still pending in the present application. **THIS ACTION IS FINAL.**

Response to Arguments

2. Applicant's arguments with respect to claims **21-32** have been considered but are not persuasive.

The Applicant argues that Masseroni does not disclose detecting the number of parallel subscriber on a single timeslot. Masseroni does disclose this limitation where he discloses unambiguously discriminating up to eight users in a time slot. Furthermore, it is apparent that the number of parallel users must be identified because in order for the communication system and network to function properly i.e. to allocate resources, perform load balancing and account for interference it must know and identify the number of simultaneous users it is serving.

The Applicant further contends that Masseroni does not disclose detecting the number of used RLC blocks and the comparison between the numbers of used RLC blocks with those RLC blocks that are actually available and usable. Masseroni discloses this limitation where he

discusses the RLC blocks that are allocated to the uplink and downlink are compared with the RLC blocks stored in a buffer.

The Applicant argues that Masseroni does not disclose determining the number of USFs allocated by the network side and making the determination for the duration of the uplink or downlink TBF. Masseroni however discloses this limitation where it is discussed that the number of USFs in queues that are allocated to uplink and downlink transmission

The Applicant argues that Masseroni does not disclose evaluating the RLC data and RLC/MAC control blocks in existence. Masseroni however discloses this limitation where it is discussed that the RLC are monitored for uplink and downlink transmission.

The Applicant argues that the cited references do not disclose determining the usage of timeslots by counting the data frames. Masseroni however, discloses counting the number of RLC blocks and therefore the number of frames.

Hence, the argued features read upon the cited references

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21- 26 and 28-32, are rejected under 35 U.S.C. 102(e) as being anticipated by **Masseroni et al (EP 1257096 A3)**.

Consider **claim 21, Masseroni et al.** clearly disclose a method for detecting multiuser behavior on an aerial interface in GPRS and EGPRS mobile radio systems (*abstract, page 8 paragraph 0036, figure 14,15*), comprising the steps of acquiring and evaluating during a transmission of subscriber data on an aerial interface, additional information contained in subscriber data by a device on a network side and/or a subscriber side, both in the uplink and the downlink (see *figure 14-24, page 8 paragraph 0036 and 0037, page 9 paragraph 0038* where Masseroni et al describe that the establishment of a TBF uplink connection where the network requires to know the number of blocks that a MS mobile intends to transmit. In addition, in the download TBF a buffer is allocated to contain the RLC/MAC blocks to be sent).

Identifying a number of parallel subscribers in used timeslots based on the additional information(*page 9 paragraph 0038* where Masseroni discloses identifying up to eight parallel users)

Consider **claim 29, Masseroni et al.** clearly disclose a device for detecting multiuser behavior on the aerial interface in GPRS and EGPRS mobile radio systems (*abstract, page 8 paragraph 0036, figure 14,15*), during a transmission of subscriber data on the aerial interface, additional information contained in the subscriber data are acquired and evaluated by at least one device on the network side and/or the subscriber side, both in the uplink and the downlink and;

a number of parallel subscribers in used timeslots based on the additional information(*page 9 paragraph 0038* where Masseroni discloses identifying up to eight parallel users)

wherein the at least one device for acquiring additional information is provided on the network side and/or on the subscriber side in the mobile radio network, which information is included in the subscriber data transmitted on the aerial interface in the downlink and uplink(see *figure 14-24, page 8 paragraph 0036 and 0037, page 9 paragraph 0038* where Masseroni et al describe that the establishment of a TBF uplink connection where the network requires to know the number of blocks that a MS mobile intends to transmit. In addition, in the download TBF a buffer is allocated to contain the RLC/MAC blocks to be sent); and

Consider **claim 22** and as applied to claim 21 above, **Masseroni et al.** clearly disclose wherein the acquiring and evaluating step comprises the steps of comparing at the beginning of a Temporary Bit Flow (TBF) the number of the used Radio Link Control (RLC) blocks with an actually available and hence usable number of RLC blocks (*pages 14 paragraph 0064-0067, page 15,16 paragraph 0068-0071*) and the identifying step comprises the step of identifying a

number of parallel subscribers in used timeslots based on the additional information contained in the RLC blocks (*see page 9 paragraph 0038* where Masseroni et al discloses that the network assigns each TBF connection a TFI (temporary flow identity) and that the MS assume that the TFI value is unique among TBF competitors in each direction, uplink or downlink. Masseroni further discloses that a RLC data block is identified to the TBF to which it is associated through its own field and another field to indicate uplink or downlink direction of the block. Note that since the TFI value is unique it can be used to determine the number of current parallel subscribers in the timeslots).

Consider **claim 23** and as applied to claim 21 above, **Masseroni et al.** clearly disclose wherein the acquiring and evaluating step comprises the step of evaluating parameters Uplink Status Flag (USF) and/or Temporary Flow Identifier (TFI) as additional information (*page 9, paragraph 0038*).

Consider **claim 24** and as applied to claim 23 above, **Masseroni et al.** disclose wherein the acquiring and evaluating step comprises the step of determining for the duration of an uplink TBF, how many USF's are allocated by the network side (*see figure 15, 17 and 22b, pages 14-15 paragraph 0068, page 16 paragraph 0072-0073*)

Consider **claim 25** and as applied to claim 23 above, **Masseroni et al.** disclose wherein the acquiring and evaluating step comprises the step of determining for the duration of a downlink TBF, how many USF's are allocated by the network side (*see figure 15, 17 and 22b*

24a, pages 14-15 paragraph 0068, page 16 paragraph 0072-0073, page 21 paragraph 0093-0094 Note that since USF are sent on the downlink RLC blocks, the USF is considered to be determine on the duration of the downlink TBF).

Consider **claim 26** and as applied to claim 23 above, **Masseroni et al.** clearly disclose wherein the acquiring and evaluating step comprises the step of identifying the USF's and/or TFI's and for each TBF and a combination of all TBF's which are part of the transfer (*figure 15-17, page 15 and 16, paragraph 0069-71*)

Consider **claim 28** and as applied to claim 21 above, **Masseroni et al.** clearly disclose wherein the acquiring and evaluating step comprises the step of evaluating for the entire lifetime of the respective uplink TBF and/or downlink TBF, the RLC data as well as the RLC/MAC control blocks for all TBF's in existence at that time and in all timeslots allocated to the respective TBF, and determining based on these data if a multiuser operation has occurred at the time of the data transmission (*see figure 15-17, 20a, 20b, 22b, 23, 24a 25, pages 14-15 paragraph 0068, page 16 paragraph 0072-0073, page 19 paragraph 0084-0086, page 21 paragraph 0093-0094*) .

Consider **claim 30** and as applied to claim 29, **Masseroni et al.** clearly disclose wherein the at least one device is provided in the Packet Control Unit PCU (*see figure 13 physical layer, figure 14 PCU frame, page 14 paragraph 64-66, page 16 paragraph 0074*)

Consider **claim 31** and as applied to claim 29, **Masseroni et al.** disclose the at least one device comprises a subscriber-side measurement system, which cooperates with or is integrated in a mobile radio terminal (see *figure 15-17, pages 14-15 paragraph 0068* where Masseroni et al. show that the TBF Manager comprises buffers that stores the current number of RLC blocks)

Consider **claim 32** and as applied to claim 29 above, **Masseroni et al.** clearly disclose wherein the additional information comprises the parameters USF and/or TFI (*page 9, paragraph 0038*).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Masseroni et al (EP 1257096 A3)** in view of **Lintulampi et al. (US 6747962 b2)**.

Consider **claim 27** and as applied to claim 22 Masseroni et al. disclose wherein the acquiring and evaluating step comprises the step of determining the usage of the timeslots for the RLC blocks by counting the data frames *pages 14-15 paragraph 0068, page 16 paragraph 0072-0073*,. Masseroni et al however, does not specifically disclose that this is done during static allocation.

In the same field of endeavor, Lintulampi et al. disclose RLC blocks sent from mobile station to the network. During this operation the network acknowledges the receipt of every RLC

block and thus knows the number of data frames that were used. Therefore, it is apparent that the network can determine the usage of the timeslots (*figure 4, column 8 line 65- column 9 line 45*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the teachings of Lintulampi et al. in the teachings of Masseroni et al. to efficiently manage radio resources in the communication network (*abstract, column 8 line 65- column 9 line 45*).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22314

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ibrahim A. Khan whose telephone number is (571) 270-1110. The Examiner can normally be reached on Monday-Friday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300..

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Ibrahim A. Khan

I.A.K./iak

04/18/2007


NICK CORSARO
SUPERVISORY PATENT EXAMINER
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